

Lorex Monitor Remote Access Setup Guide

Dlink DI-624

Date: 25 May 2005

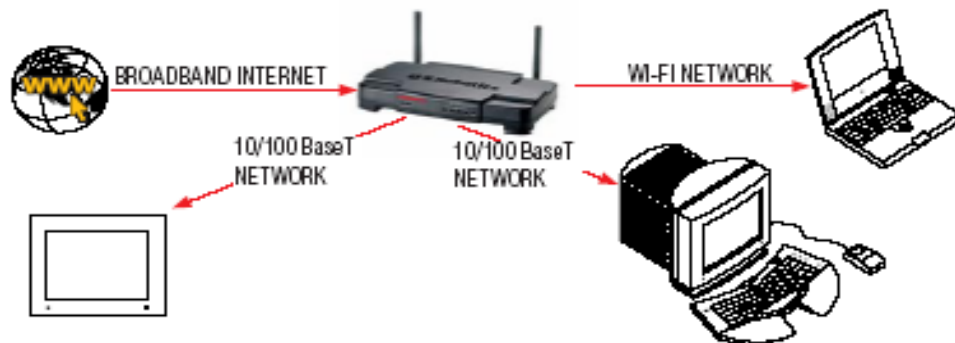


Step 1: Before you Start

This section will help you in setting up and configuring your Lorex Monitor(s) and PC(s) to be able to view the video images from remote locations on the Internet. We assume that you already have the monitor hooked up and working and that you can view video from within your Local Area Network (LAN). If not, please consult the Quick Start guide or the Lorex Manual before you continue with remote access setup.

This document will help you do the following;

- Configure your router to enable access from outside the LAN
- Register for the Dynamic Domain Name Service (DDNS) from Strategic Vista
- Configure the Lorex Monitor to operate with DDNS
- Set up a password to secure your monitor
- Configure the Lorex Player to reach the monitor using the DDNS.



Step1: Configure your router to enable access from the Internet

To view video images remotely across the Internet involves setting up your broadband router. The example shown here uses the DLink-624 Wireless Broadband Router. For routers other than the example shown, please consult your router manual and/or your router manufacturer's website for technical support.

Step 1A: Log into your Router's Administration Server

Use a web browser on a computer that is connected to the LAN side of the router to access your broadband router. Typically this will be at an IP Address such as 192.168.1.1 or maybe 192.168.0.1. Consult your router manual for exact details. Enter the username and password for your particular router – by default the DLink-624 uses 'admin' as the username and the password is blank.



A Windows-style prompt dialog box titled "Prompt" with a blue header bar and a close button (X) in the top right corner. The dialog contains an information icon (i) and text: "Enter username and password for 'DI-624' at http://192.168.1.1". Below this, there are two input fields: "User Name:" with the text "admin" entered, and "Password:" with "*****" entered. A checkbox labeled "Use Password Manager to remember this password." is present and unchecked. At the bottom are "OK" and "Cancel" buttons.

Select a screen display that provides device and/or network status. In the case of the DLink-624 it will appear as follows;



The screenshot shows the web interface of a D-Link AirPlus Xtreme G DI-624 router. The header includes the D-Link logo and the product name "AirPlus Xtreme G High-Speed 2.4GHz Wireless Router". The navigation tabs are "Home", "Advanced", "Tools", "Status" (highlighted in yellow), and "Help". On the left sidebar, there are buttons for "Device Info", "Log", "Stats", and "Wireless". The main content area is titled "Device Information" and shows the "Firmware Version: 1.24 , Wed, 23 Jul 2003". It is divided into sections for LAN, WAN, and Wireless 802.11g. The LAN section shows MAC Address 00-80-C8-16-BB-6F, IP Address 192.168.1.1, Subnet Mask 255.255.255.0, and DHCP Server Enabled. The WAN section shows MAC Address 00-80-C8-16-BB-70, Connection PPPoE Connected (with Connect and Disconnect buttons), IP Address 65.95.153.236, Subnet Mask 255.255.255.255, Default Gateway 65.95.153.236, and DNS 206.47.244.109 206.47.244.137. The Wireless 802.11g section shows MAC Address 00-80-C8-2B-63-70.

The status and external IP Address of the router are clearly shown in the WAN section.

Step1B: Set up the Static IP address

Some routers, including the DLink-624, have the capability to fix the internal IP addresses that are distributed using DHCP. If your router supports this feature, you will want to set it up to ensure that the internal IP address never changes.

In the case of the Dlink-624, click the 'DHCP' button and then click on the DHCP Server 'Enabled' radio button. From the DHCP client dropdown list select the entry that corresponds to the Lorex Monitor and click on the

'clone' button. Click on the Static DHCP 'Enabled' radio button. Then click on the 'Apply' button to save this configuration.

The screenshot shows the configuration interface for a DLink-624 router. On the left is a vertical sidebar with buttons for 'Wizard', 'Wireless', 'WAN', 'LAN', and 'DHCP' (which is highlighted in yellow). The main content area has a top navigation bar with 'Home', 'Advanced', 'Tools', 'Status', and 'Help' tabs. The 'Advanced' tab is selected. The page is titled 'DHCP Server' and contains the following settings:

- DHCP Server:** Enabled (radio button selected), Disabled (radio button unselected).
- Starting IP Address:** 192 . 168 . 1 . 120
- Ending IP Address:** 192 . 168 . 1 . 199
- Lease Time:** 1 Week (dropdown menu)

Below this is the 'Static DHCP' section, which is also titled 'Static DHCP' and contains the following settings:

- Static DHCP:** Enabled (radio button selected), Disabled (radio button unselected).
- Name:** appliance
- IP:** 192 . 168 . 1 . 123
- MAC Address:** 00 - 20 - 78 - 16 - 60 - E7
- DHCP Client:** appliance,00-20-78-16-60-E7 (dropdown menu) with a 'Clone' button next to it.

At the bottom right of the configuration area are three icons: a green checkmark, an orange 'X', and a red plus sign, with the labels 'Apply', 'Cancel', and 'Help' respectively.

If your router does not support the Static DHCP feature, then you will want to set the IP Address explicitly. Choose a new address value that is not already assigned and is outside of the range of the DHCP server to avoid address conflict. (i.e. does not fall within the Starting and Ending IP Address). Use the new address in the following setup. If you do re-assign the IP address, remember to also set it in the Lorex Monitor using the Lorex Utility (see the manual on how to do this).

Step 1C: Create a data path from the Internet to the Lorex Monitor

Most routers have a way of setting up forwarding rules to allow external Internet client applications to access devices on the LAN. In the case of the DLink-624 router select the 'Advanced' tab and you will see the following screen;

D-Link
Building Networks for People

AirPlus Xtreme G™
High-Speed 2.4GHz Wireless Router

DI-624

Virtual Server

Virtual Server is used to allow Internet users access to LAN services.

☒ Enabled ☐ Disabled

Name: Virtual Server HTTP

Private IP: 192.168.1.12

Protocol Type: TCP

Private Port: 80

Public Port: 80

Schedule: ☒ Always ☐ From

time: 01 : 00 AM to 01 : 00 AM

day: Sun to Sun

Virtual Servers List

Name	Private IP	Protocol	Schedule
<input type="checkbox"/> Virtual Server FTP	0.0.0.0	TCP 21/21	always
<input checked="" type="checkbox"/> Virtual Server HTTP	192.168.1.12	TCP 80/80	always
<input type="checkbox"/> Virtual Server HTTPS	0.0.0.0	TCP 443/443	always
<input type="checkbox"/> Virtual Server DNS	0.0.0.0	UDP 53/53	always

Create a path for your streaming video by entering values as shown;

- Click the 'Enabled' radio button
- Enter the Name (this is your choice)
- Enter the Private IP. This must be the same IP address that appears in the LCD of the Lorex Monitor and/or the static IP set in the previous step.
- Set the Protocol Type to 'TCP',
- Set the Private Port to '80'
- Set the Public Port to '80'
- Set the Schedule to 'Always'

and select the 'Apply' button.

This will create a data path that the Lorex Player will use to access the video stream and will allow you to view the video images. If you also want to access the Lorex Monitor using a web browser, no changes are required.

Note to advanced users; Web servers are favourite targets of hackers and so using port '80' in this last step may make your Lorex Monitor a little less secure. Therefore, we recommend returning to this step once you are satisfied with the functionality and changing the settings to use a high port number (e.g. 9002). You will also have to change the Lorex Player and Lorex Monitor settings for this. Consult the respective manuals for details.

Step 2: Register for the Dynamic Domain Name Service (DDNS)

Unless you specifically obtain a static external IP address, your broadband Internet address, which is assigned by your service provider, is subject to change on a regular basis. Dynamic DNS is a service from StrategicVista included with your monitor whereby the Lorex Monitor registers the IP address of the router with the external DNS system. In order to be able to locate your home network, you must sign up to use the Dynamic DNS system.

Note: You need only have one device registering the IP Address of the network. If you already have DDNS

support by a different means, you may not need to do this step.

Using a web browser go to register.strategicvista.net, and click on the 'create account' link.

Terms of Service.' The 'Camera Information' section includes a 'Product License' field, which is split into two parts: a text box and a dropdown menu, followed by the text '<Product Code> - <MAC Address>'. At the bottom of the form is a button with a key icon and the text 'Create New Account'."/>

You will be asked to provide the following information;

- Your e-mail address
- A secret password
- Your name
- Your Region (state or province)
- Your country
- Your product license number – This is the same number you entered when installing your Lorex Player. The license number is made up of;
 - 6 to 8-character product code that can be found on the packaging,
 - 12-character MAC number that is displayed when running the Lorex Utility program (see below). Do not include the separating colons (:)

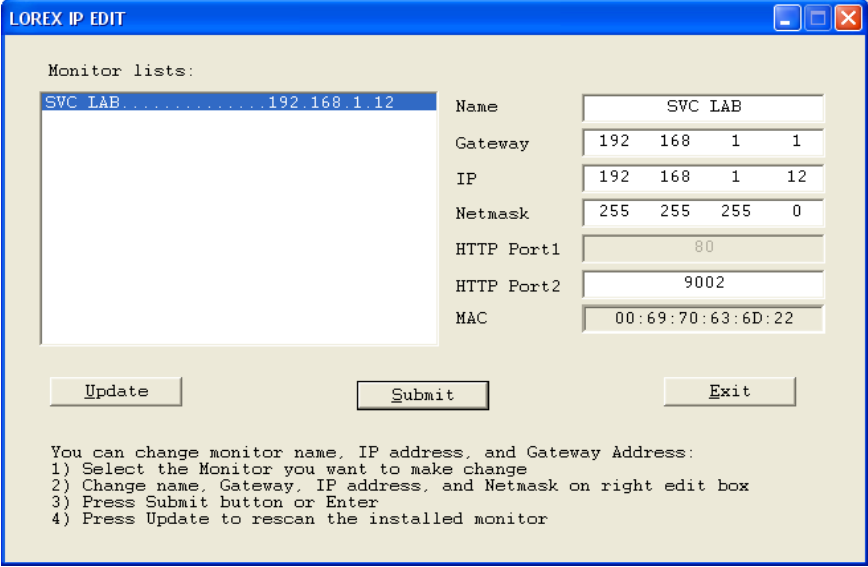
After you select 'Create New Account' you will receive a username and password confirmation by e-mail, which you will use in the following steps. If you wish to change any of the parameters you may revisit the Registration page. However, you will be prompted for the existing secret password before you will be allowed access.

Step 3: Configure the Lorex Monitor for DDNS and Password access

Insert the CD into CD-reader of your Windows 2000 or Windows XP computer. Wait for the CD to autostart. Select the 'Lorex IP Edit' option from the screen. (If it does not autostart you can manually run the ipedit.exe program found in the Lorex Utility directory on the CD).

This screen will display the IP address of the Lorex Monitor. Click on the item in the left-hand pane and the

details will be displayed to the right. To change any of the highlighted parameters, enter in the new values and click 'Submit'. For example, to enable access port 9002, enter this in the HTTP Port2 field and click 'Submit'.



The screenshot shows a window titled "LOREX IP EDIT". Inside, there is a section "Monitor lists:" with a list box containing "SVC LAB 192.168.1.12". To the right of the list box is a configuration table for the selected monitor. The table has the following fields and values:

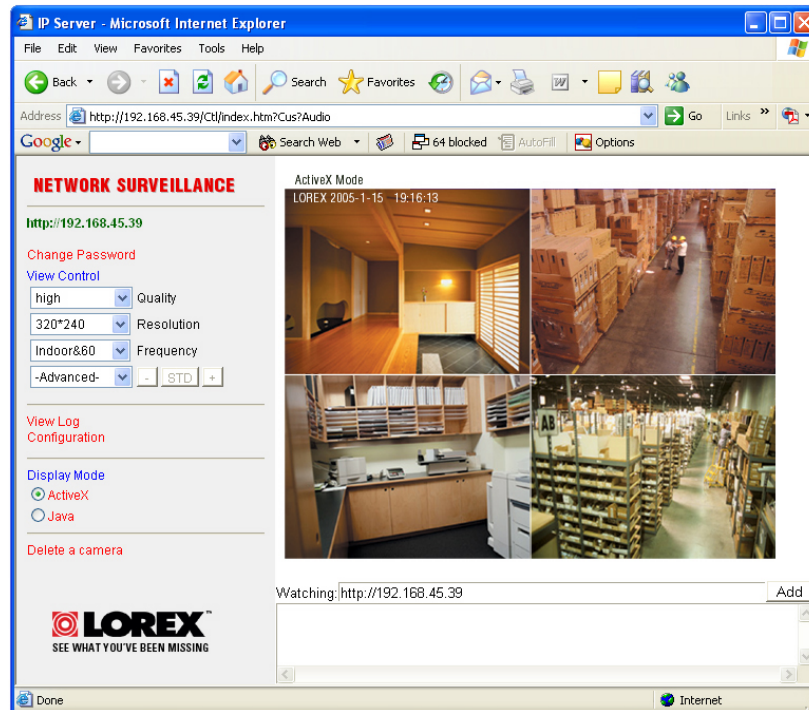
Name	SVC LAB
Gateway	192 168 1 1
IP	192 168 1 12
Netmask	255 255 255 0
HTTP Port1	80
HTTP Port2	9002
MAC	00:69:70:63:6D:22

Below the configuration table are three buttons: "Update", "Submit", and "Exit". At the bottom of the window, there is a text block with instructions:

You can change monitor name, IP address, and Gateway Address:
1) Select the Monitor you want to make change
2) Change name, Gateway, IP address, and Netmask on right edit box
3) Press Submit button or Enter
4) Press Update to rescan the installed monitor

In order to use the Strategic Vista DDNS service you must have signed up with the Strategic Vista network in step 2 above. You will have received an e-mail providing you with the parameters to enter in this part of the setup.

The Lorex Monitor must be configured using a web browser. Double-click on the Monitor list item in the Lorex Utility screen above to bring up the web browser. Alternatively, enter the module's IP address in the browser address bar. The Network Surveillance screen will appear, as shown below;



Step 3A: Set up the DDNS client

Click on the Configuration link to bring up the configuration pane and then click on the DDNS link. The following screen will appear;

NETWORK SURVEILLANCE

- System
- User
- Motion Detect
- Network
- Audio
- DDns
- Monitor Window

Dynamic DNS (<http://192.168.1.12>) [Back to monitor window](#)

Before configuring DDNS, you need to visit dns.strategicvista.net and register a domain name.

☒ Enable
 ☐ Disable

UserName:

Password:

DomainName:

Interval(min):

State:

The Dynamic DNS settings must be entered as described in the confirmation e-mail. When done, click on the 'Submit' button at the bottom of the page.

Note that IP Address updates do take a few minutes to propagate, so allow about 15 minutes after setting up the Lorex Monitor's DDNS before expecting to use the system.

Step 3B: Set up a password to secure your module

The connection that you currently have is suitable for use on a private Local Area Network. If you are concerned that others can get access to your Lorex Monitor, you must enable password protection as follows;

In the left-hand panel, click on the 'User' option. The following screen will appear;

NETWORK SURVEILLANCE **User Management** (http://192.168.1.12) [Back to monitor window](#)

System
User
Motion Detect
Network
Audio
DDns
Monitor Window

User authorization required:
☒ Yes ☐ No

Add a user or change password:
Username:
Password:
Confirm:

Delete user:
Username:

Current users list:
1: steven
2: admin

Enter in a user name and password to create a new user and click on 'Set/change'. Also, click on the 'admin' name under the Current users list. Then enter in a new, secure, password for the administrator and click on the 'Set/change' button. Make sure you know what the passwords are and be **VERY** careful not to enter them incorrectly! You will need these to access the module from now on. Note that these are different passwords from the one used in step 2 to register with DDNS.

Under 'User authorization required', click on 'Yes' and then 'Set '.

Step 3C: Setting up an alternate port

NETWORK SURVEILLANCE **System Setting** (<http://192.168.1.12>) [Back to monitor window](#)

System
User
Motion Detect
Network
Audio
DDns
Monitor Window

Server Version: Jul 8 2004 09:53:50
 Server name: SVC LAB
 Change

Server's time: 1/31/2003 20:35:10 Time Zone: GMT-05:00
 Time zone: GMT-04:00
 DayLight: 0
☐ NTP:
 NTP Server:
 Interval(day): 0
☒ Input new time: ☒ Copy PC's time
 Date: 5/25/2005
 Time: 11:33:45
 Adjust

Http port 1: 80
 Http port 2: 9002
☐ Reboot immediately.
 Change

[Restore factory default configuration](#)
[Reboot IP Server](#)
[Firmware update](#)

To set an additional port for accessing the Lorex Monitor, click on the 'System' link. The following screen will appear;

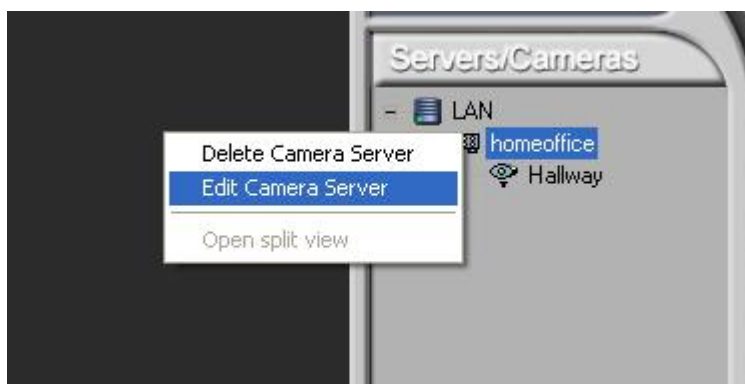
Enter the alternate port into the 'Http port 2' field, select the 'Reboot' option and click on the 'Change' button.

Step 4: Configure the Lorex Player

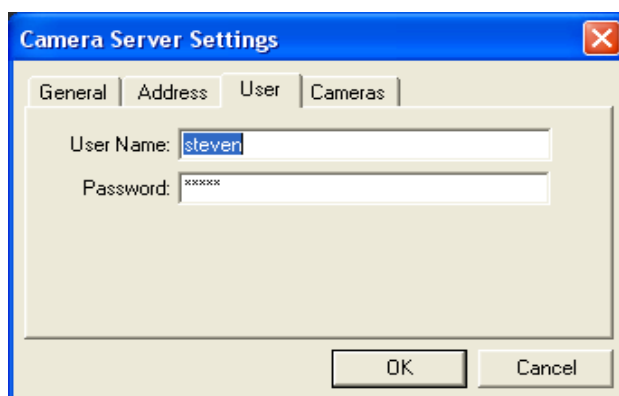
The Lorex Player was previously configured for Local Area access by specifying the IP address directly. This section will show you how to set this up so that it can access the video from the Internet as well.

Step 4A: Update the Lorex Player for the new password

Run the Lorex Player as before. From the Servers/Cameras panel select the Camera Server and right-click on it with your mouse and choose 'Edit Camera Server'.



Select the 'User' tab and enter the same User Name and Password as you entered in the Lorex Utility (step3B) above. Select 'OK'.



Start the video by double-clicking on the camera icon and you will be able to view the video as before.

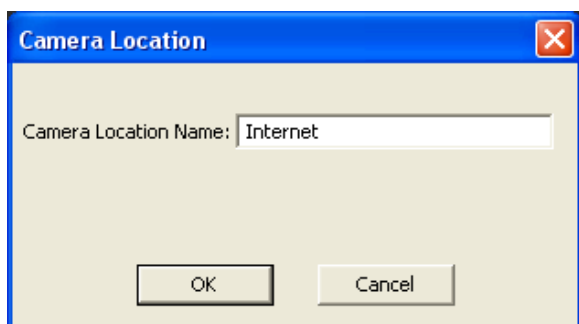
Step 4B: Setting up Remote access from the Internet

Now that the camera is working across your LAN, you may want to consider viewing the video images over the Internet when you are in a different location. To do this you must set up a new camera location;

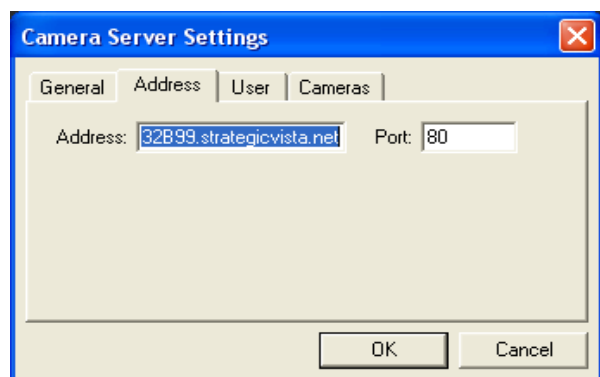
In the camera/servers area, right click and select 'Add Camera Location';



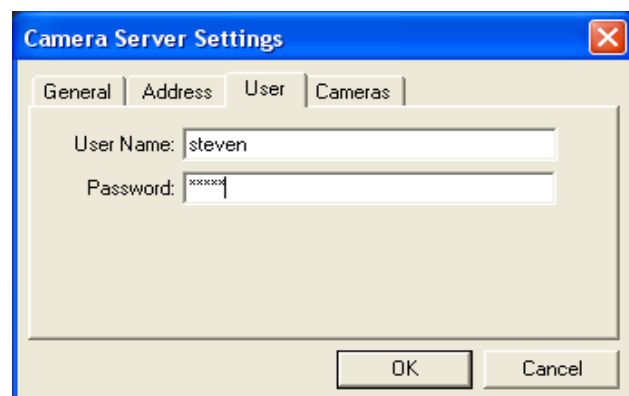
Enter a name that indicates that this is for Internet access, and define the cameras exactly as before;

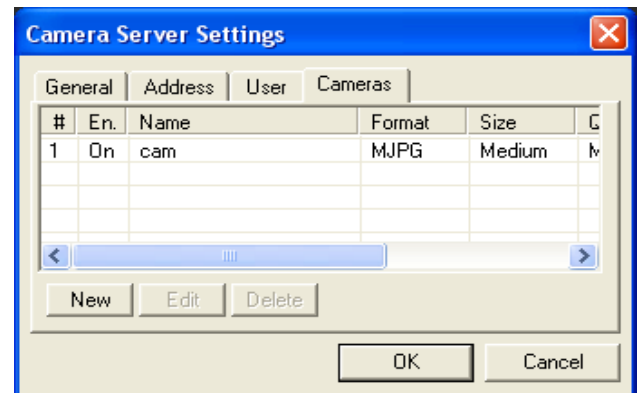


In the address field, enter the URL as it is specified in the DDNS setup e-mail. Typically, this will be in the format <MAC>.strategicvista.net. In the Port field enter '80'. Note if you are setting up an alternate port number (e.g. 9002), then enter that instead;



The User Name and Password will be the same as entered in step 3B above. After entering these click 'Next'.





Define the camera, as before, by clicking the 'New' button, and when done click the 'Finish' button.

Start the video by double-clicking on the camera icon and you will be able to view the video as before from anywhere in the world.

